

SEA-BIRD ELECTRONICS, INC.

13431 NE 20th Street, Bellevue, Washington, 98005-2010 USA

Phone: (425) 643 - 9866 Fax (425) 643 - 9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0854
CALIBRATION DATE: 18-May-10

SBE3 TEMPERATURE CALIBRATION DATA
ITS-90 TEMPERATURE SCALE

ITS-90 COEFFICIENTS

g = 4.83491483e-003
h = 7.18098052e-004
i = 5.22470575e-005
j = 6.54275327e-006
f0 = 1000.0

IPTS-68 COEFFICIENTS

a = 3.68121940e-003
b = 5.94193373e-004
c = 1.71994395e-005
d = 6.54494504e-006
f0 = 5971.176

BATH TEMP (ITS-90)	INSTRUMENT FREQ (Hz)	INST TEMP (ITS-90)	RESIDUAL (ITS-90)
-1.5000	5971.176	-1.5005	-0.00052
1.0000	6319.032	1.0005	0.00046
4.5000	6830.366	4.5006	0.00065
8.0000	7370.775	8.0000	-0.00003
11.5000	7941.081	11.4995	-0.00047
15.0000	8541.921	14.9995	-0.00052
18.5000	9173.868	18.4998	-0.00016
22.0000	9837.372	22.0003	0.00028
25.5000	10532.819	25.5005	0.00046
28.9999	11260.570	29.0002	0.00035
32.5000	12020.930	32.4995	-0.00048

Temperature ITS-90 = $1/\{g + h[\ln(f_0/f)] + i[\ln^2(f_0/f)] + j[\ln^3(f_0/f)]\} - 273.15$ (°C)

Temperature IPTS-68 = $1/\{a + b[\ln(f_0/f)] + c[\ln^2(f_0/f)] + d[\ln^3(f_0/f)]\} - 273.15$ (°C)

Following the recommendation of JPOTS: T_{68} is assumed to be $1.00024 * T_{90}$ (-2 to 35 °C)

Residual = instrument temperature - bath temperature

